



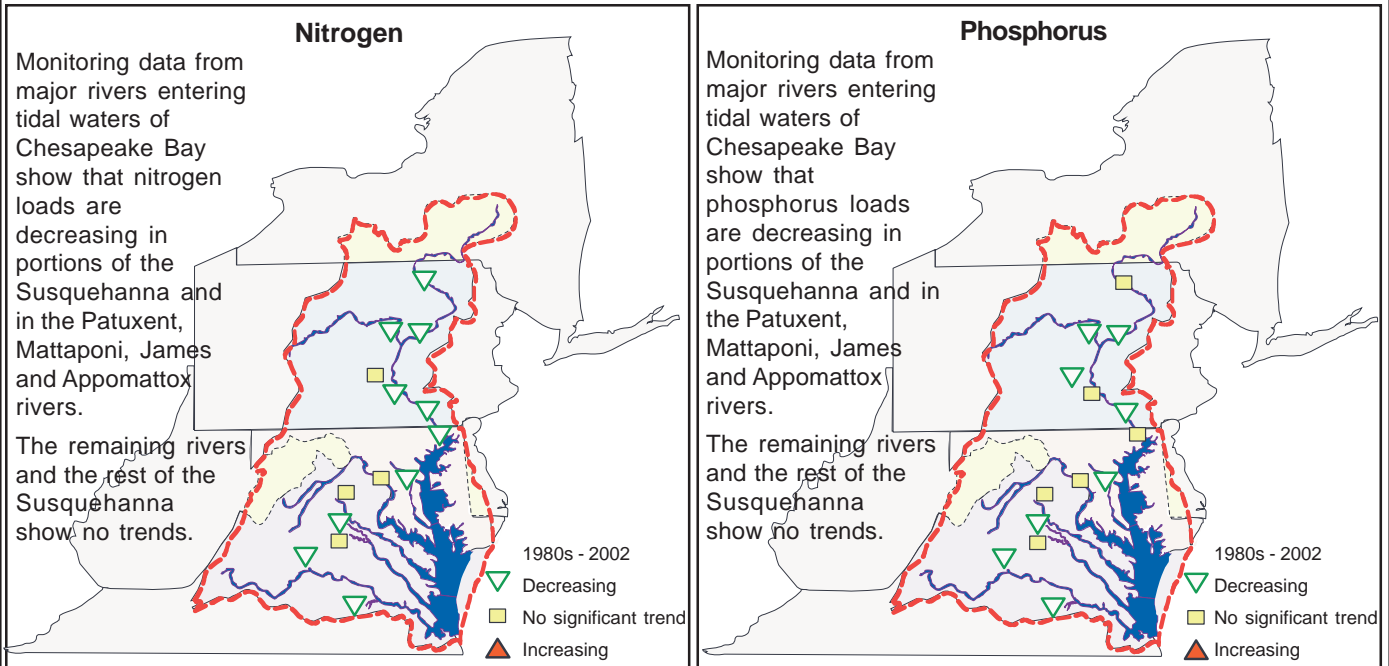
The Chesapeake Bay Program: 20 Years of Progress – Remaining Challenges



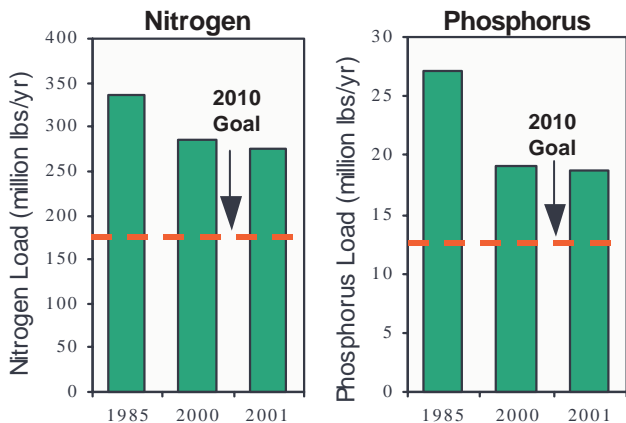
Twenty years ago, the historic *Chesapeake Bay Agreement of 1983* established the Chesapeake Bay Program – a unique federal-state-local partnership committed to restoring the Chesapeake Bay. Since its inception, the Bay Program’s highest priority has been the restoration of the Bay’s living resources. Improving water quality is the most critical element in bringing about this restoration. The Chesapeake Bay is healthier today than it would have been without the cooperative efforts and guidance of the Chesapeake Bay Program partnership. However, the Bay is no where near restored. A great deal of progress has been made over the last twenty years by a variety of stakeholders, but clearly more needs to be done.

Improving Water Quality

Nutrient Pollution Levels Declining in Some of the Non-tidal Portions of the Rivers



Nutrient Pollution Loads Delivered to the Bay Are Declining but We Still Need to Do More



To provide the water quality needed to restore living resources, in 1993 the Bay Program partners agreed to attack nutrient pollution at its source – upstream in the Bay’s tributaries.

As a result, Pennsylvania, Maryland, Virginia and the District of Columbia began implementing pollution reduction strategies to achieve nutrient reduction targets of 74 million pounds of nitrogen and 8.4 phosphorus baywide.

One of the most important accomplishments of this partnership has been a 62.36 million pound reduction in nitrogen and an 8.35 million pound reduction in phosphorus.

This year, Bay Program partners committed to additional reductions of nutrients. In order to achieve the new goals, we need to reduce annual loads of nitrogen an additional 100 million pounds and phosphorus an additional 6 million pounds by 2010.



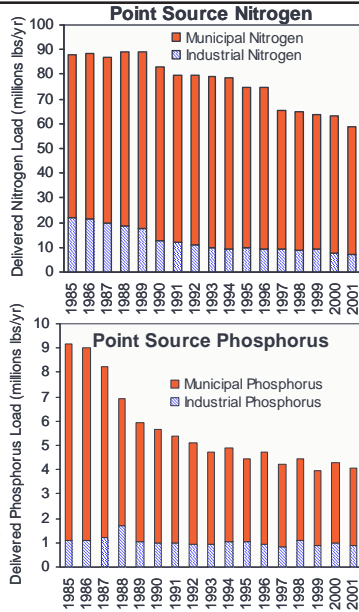
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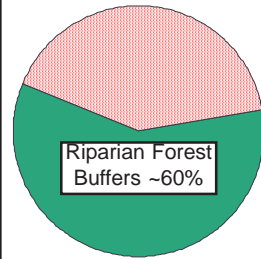
What Have Bay Program Partners Done to Reduce Nutrient Pollution?

Wastewater Treatment Plant Upgrades

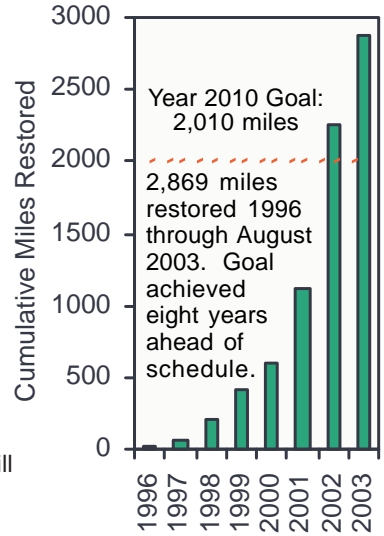
A phosphate detergent ban and advanced treatment of wastewater to reduce nutrient discharges at 91 municipal facilities resulted in dramatic reductions in nutrient pollution to the Bay. Phosphorus loads from point sources declined 56% (5 million pounds/yr) and nitrogen loads declined 33% (29 million pounds/yr) between 1985 and 2001, in spite of a 17% increase in population.



Streamside Forests Being Restored



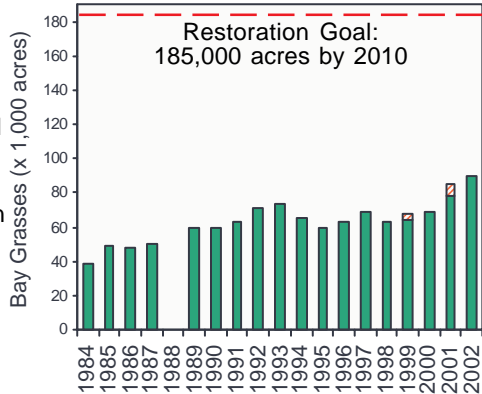
Approximately 60% or 118,000 miles of the basin's 199,000 miles of streambank and shoreline are buffered by riparian forests. Bay Program leaders will set a new goal at their 2003 meeting.



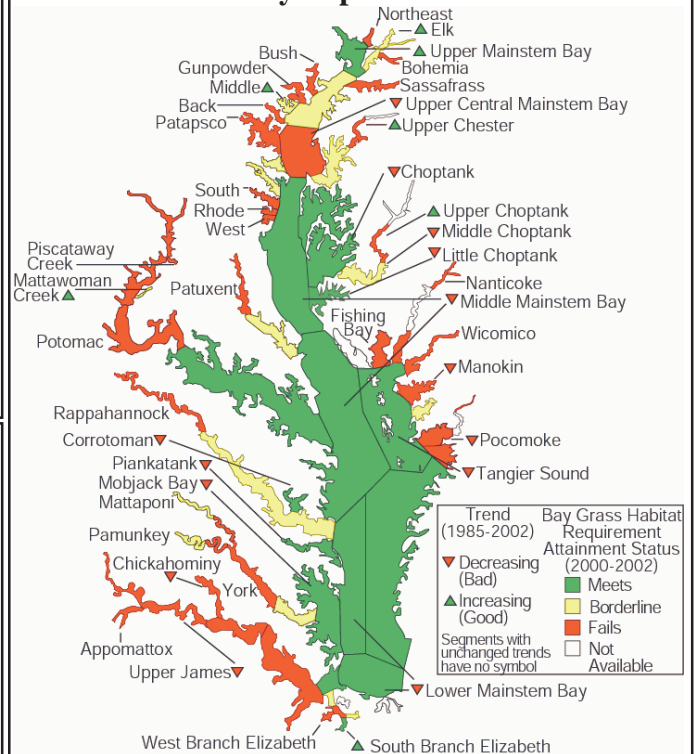
What Has Been the Response to Nutrient Pollution Reductions?

Underwater Bay Grasses Have Increased Since 1984

While recent improvements in water quality have contributed to a resurgence (from a low of ~38,000 acres in 1984 to ~90,000 acres in 2002), more improvements are needed.



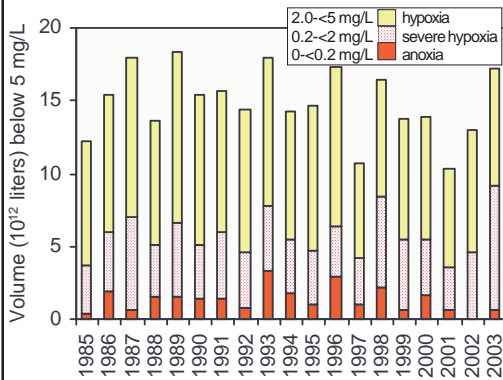
Water Clarity Improvements Needed



Water clarity is degrading in many parts of the basin. While most of the mainstem Bay, larger embayments and lower regions of large tributaries meet the minimum light requirement for underwater bay grasses, upper regions of the large tributaries and many minor tributaries fail. Water clarity is improving in portions of the upper Bay, Middle River and upper regions of the Chester and Choptank rivers.

Dissolved Oxygen Concentrations Improving

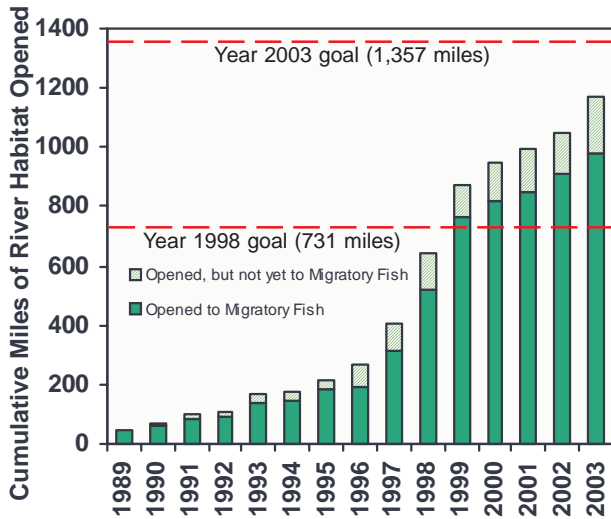
Mainstem Bay Lower Layer Waters with Reduced Oxygen (June – August Average)



In 2002, there were no occurrences of anoxia. In 2003, occurrences of anoxia were below the long-term average, in spite of record river flow delivering excess nutrient pollution to the Bay from nonpoint sources.

Protecting and Restoring Vital Habitat and Living Resources

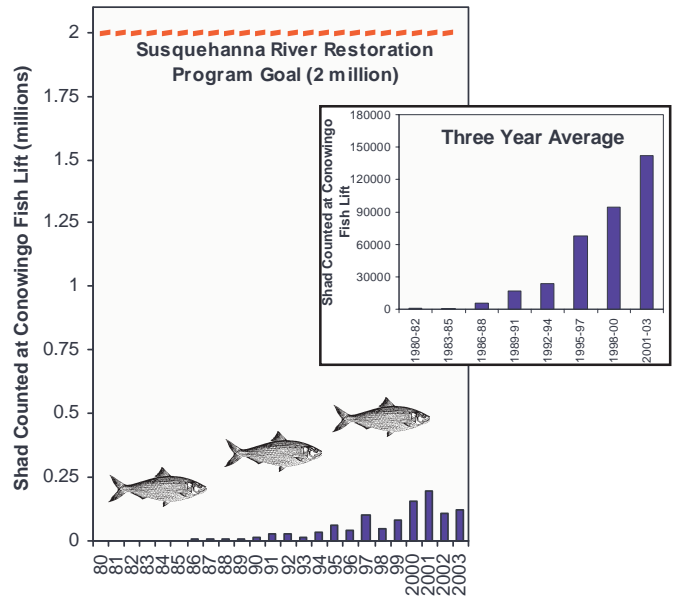
Progress Made Getting Migratory Fish Past Dams and Blockages



In 1993, the partners agreed to a ten-year target of reopening 1,357 miles of fish spawning habitat. So far, 1,169 miles have been reopened, of which 977 are available to migratory fish.

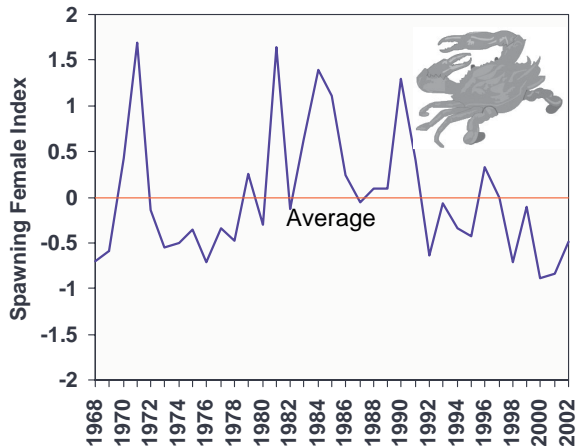
In 2004, the partners expect to achieve this goal and commit to restoring even more habitat.

Shad Are Starting to Make a Comeback but Have a Long, Long Way to Go



Stocking efforts, a moratorium, and fish passage development increased the number of shad returning to Conowingo Dam from several hundred per year in the early 1980s to an average of 142,000 per year in 2001-2003.

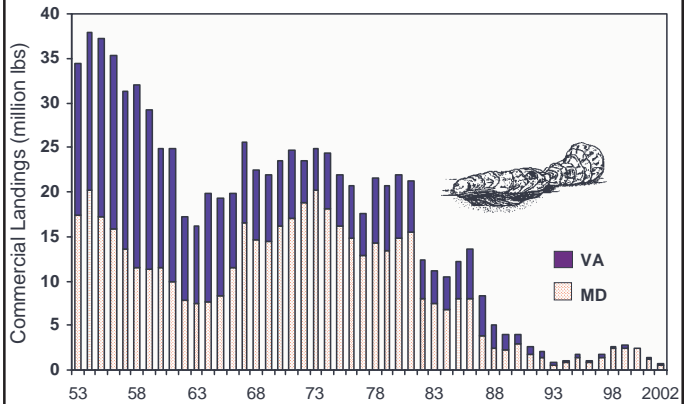
Blue Crabs at Risk



Mature female abundance is well below the long term average and has declined since the early 1990s. The abundance estimate for 2002 is slightly above the historically low levels reported for 2000 and 2001.

Bay partners have agreed to increase spawning potential by reducing current harvests 15% by 2003.

Oysters at Risk



Oyster harvests are approximately 2 percent of the harvest highs recorded in the 1950s. The 2002 harvest was the lowest on record.

The *Chesapeake 2000* agreement commits to achieve a tenfold increase of native oysters in the Bay by 2010 and to establish oyster reefs and sanctuaries in strategic locations.



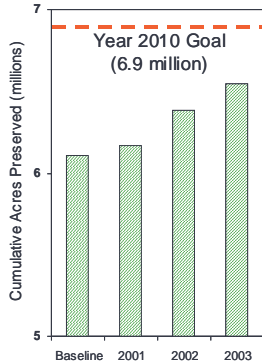
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Managing Lands Soundly

Acres of Preserved Land Increasing

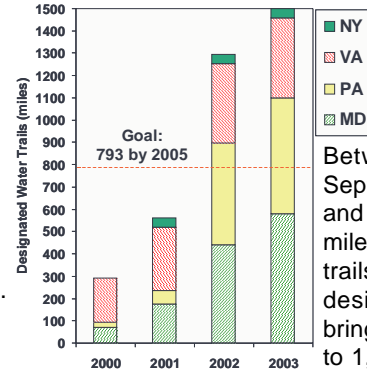
In 2000, Bay Program partners committed to permanently preserve from development 20% of the land area in the Bay watershed by 2010.



Between 2000 and 2003, 439,670 acres of land were preserved in the watershed, bringing the total to 6.54 million preserved and 376,658 more needed.

Water Trails Increasing

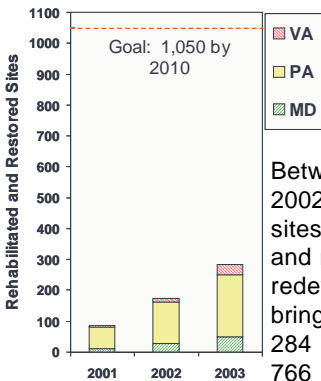
In 2000, the partners committed to increase the number of designated water trails in the Bay region by 500 miles by 2005.



Between September 2002 and 2003, 105 miles of water trails were designated, bringing the total to 1,499.

Brownfields Sites Ready for Redevelopment

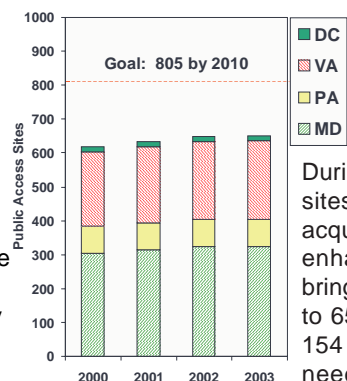
In 2000, the partners committed to rehabilitate and restore 1,050 abandoned industrial sites (brownfields) to productive use by 2010.



Between June 2002 and 2003, 111 sites were cleaned and made ready for redevelopment, bringing the total to 284 completed and 766 more needed.

Public Access Points Increasing

In 2000, the partners committed to expand by 30% the system of public access points to the Bay, its tributaries and related resource sites in an environmentally sound manner by 2010.



During 2003, 2 sites were acquired or enhanced, bringing the total to 651 sites and 154 more needed.

Engaging Individuals and Local Communities

What can you do to help restore the Bay?

Conserve electricity and water and reduce the amount of miles you drive.

Use safer, nontoxic alternatives for cleaning and for controlling pests and weeds.

Properly dispose of household hazardous waste, antifreeze, oil and boat waste.

Prevent pollution by reducing, reusing and recycling.

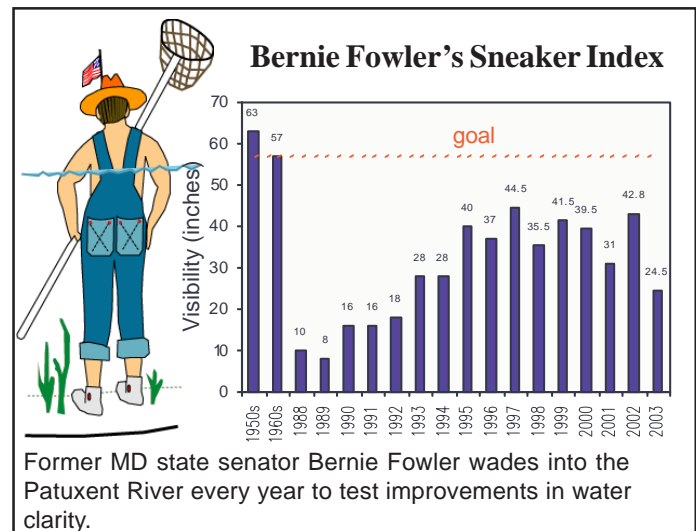
Prevent pollution from entering the Bay and rivers by planting trees, especially along streams and shorelines.

Plant native vegetation that requires the use of less fertilizer, pesticides and water.

Limit fertilizer use and apply at appropriate times.

Get involved in community groups and watershed organizations to develop and implement watershed management plans and pollution reduction plans.

Get involved with citizen monitoring efforts that track progress in the Bay cleanup.



Former MD state senator Bernie Fowler wades into the Patuxent River every year to test improvements in water clarity.